0037

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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October 10, 2003

John Gefferth, Environmental Engineer
Consolidation Coal Company
P.O. Box 566
Sesser, Illinois 62884

Re: Abatement to N03-39-1-1, Consolidation Coal Company, Emery Deep Mine, C/015/0015, Task #1692, Outgoing File

Dear Mr. Gefferth:

The above-referenced amendment has been reviewed. There are deficiencies that must be adequately addressed prior to approval. A copy of our Technical Analysis is enclosed for your information. In order for us to continue to process your application, please respond to these deficiencies by October 20, 2003.

If you have any questions, please call Priscilla Burton at (801) 538-5288 or me at (801) 538-5268.

Sincerely,

/S/

Pamela Grubaugh-Littig
Permit Supervisor

an
Enclosure
cc: Price Field Office
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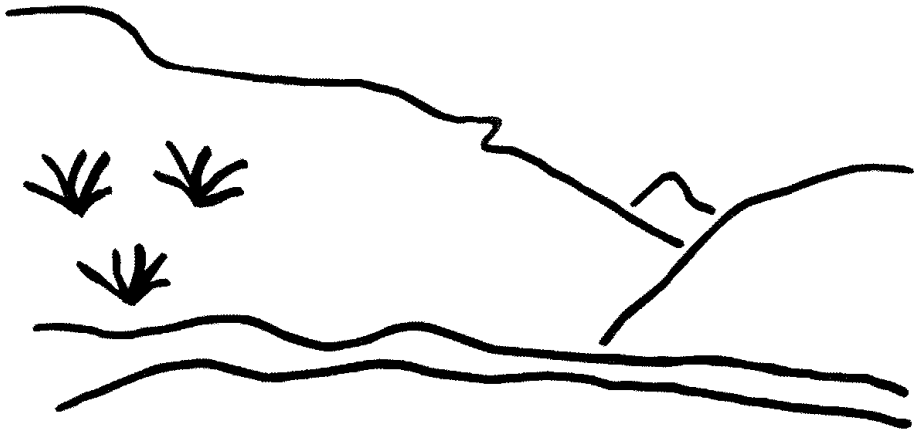
State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Emery Deep Mine
Abatement to N03-39-1-1
C/015/0015 – Task #1692
Technical Analysis
October 10, 2003

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TECHNICAL ANALYSIS

The Division derives its authority from the Surface Mining Control and Reclamation Act of 1977(SMCRA). When companies submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the Permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at http://ogm.utah.gov/coal

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings that comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application reveals some deficiencies in the application. The deficiencies are discussed in the body of the Draft TA and are identified by a regulatory reference that describes the minimum requirements. In this Draft TA we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA for this permitting action will be finalized.

Not every topic or regulatory requirement is discussed in this TA. Only those sections are analyzed that pertain to the particular permitting action, in this case the abatement of N-03-39-1-1. Those sections that are not discussed in this document are generally considered to be in compliance. Previously completed TA's for the Emery Mine, would be the source of "findings" for any section not discussed herein.

INTRODUCTION

The Division approved the construction of the 4th East Portal area in 1990. The site was not constructed until 2002. The mine was issued a Notice of Violation N03-39-1-1 (January 9, 2003) for allowing coal fines to blow onto undisturbed areas. The Permittee submitted a response to the NOV in April 2003. The Permittee, however, had implemented many of the mitigation measures listed in that amendment, prior to the Division review in June 2003. To date, the mitigation measures are not effective.

The Permittee submitted a second dust control plan in response to N03-39-1-1 (September 12, 2003). It consists of updates to text and plates for the addition of 1.5 acres to the permitted area. Appendix X.C-3 describes Phase 1 of the engineering controls and other measures to be implemented at the 4th East portal to abate NOV 03-39-1-1. The dust control plan includes wind fences, watering devices, crusher replacement, operation enclosures, and maintenance plans. The plan also includes relocating the haul truck route within a 1.5-acre area expansion site located east of the existing disturbed and permit boundary. Appendix X.C-3 indicates that Phase 2 of the control strategy will be described under separate cover and implemented should Phase 1 be unsuccessful. This Technical Analysis reviews the information outlining Phase 1 dust controls received September 12, 2003.

The 4th East Portal development is in Section 27, T. 22 S. R. 6 E. Salt Lake Meridian. The bonded area associated with the 4th East portal is 16.5 acres. The disturbed or bonded acreage for the Emery Mine is shown on the Bonding Map, Exhibit D of the Reclamation Agreement. The total bonded area is 248.5 acres.

The measurement of the success of Phase 1 must be presented in the application. A description of the measures to be employed in Phase 2 and a commitment to employ these measures, should Phase 1 be unsuccessful, must be stated in the plan. Such a statement is found as a notation to Appendix X.C-3, but a commitment of this magnitude must not be buried in the Appendix.

INTRODUCTION

SUMMARY OF DEFICIENCIES

The Technical analysis of the proposed permit changes cannot be completed at this time. Additional information is requested of the Permittee to address deficiencies in the proposal. A summary of deficiencies is provided below. Explanatory comments are found within the analysis and findings of this Draft Technical Analysis. Upon finalization of this review, any deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the division, result in denial of the proposed permit changes, or may result in other executive or enforcement action and deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the Permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

Regulations

R645-103-234, The Permittee must provide an Affidavit of Publication from the legal notice placed in the local newspaper for the Planning and Zoning Commission meeting held in Green River on September 10, 2003..... 13

R645-301-112.320, The narrative on Chapter I, page 6 needs to be re-written to reflect the change in ownership of Consol Energy, Inc as presented in Appendix I-1..... 11

R645-301-115.300 and R645-103-234.100, The County encroachment permit must be provided. 13

R645-301-121.200, (1) The Permittee must clarify whether the shut-off mechanism for the water cannon will be wind speed as stated on the sentence on page 9 or whether the shut-off threshold will be pile saturation as stated by Mr. Gefferth on October 7, 2003. (2) The Permittee must clarify the location of The Intermountain Antiquities Site form (Appendix A of Appendix 5-7 Chapter X). (3) The Permittee must change all references to warm and cool season seed mixes, in the amendment and MRP, to reflect the designation in the MRP (restating the seed in the mix may be helpful should seed mixes change over time). The following are a *few* examples of locations where warm and cool descriptors are used in the application: (a) Amendment, Chapter III, no page number, section "Worksheet – Revegetation". (b) Amendment, Chapter III, page 21. (c) Amendment, Chapter IV, pages 7, 7a. (d) Amendment, Chapter IV, map "Reconfigured topsoil stockpile abatement". (4) The

Permittee must organize and correct the editorial mistakes this amendment. (5) There are two plates with the label Plate IV-15. 15

R645-301-132, The qualifications of Norwest Corporation must accompany the submittal. 16

R645-301-141, Maps accompanying the application must include the County Road 907 that was completed in 2002. i.e Cultural Resource Plate X.A-1, 4 East Portal Disturbance Area Plate III-1, Pre and Postmining Topography, Plate III-5. 16

R645-301-142, The relationship of the 248.5 acre bonded area (Exhibit D) to the 289.6 acre Potential Surface Operations Area and the 86.2 acres of Proposed Near Disturbance Area (Table III-2) should be described and the information detailed in Table III-2 must be accompanied by Maps outlining the areas described. (Plates III-1 through III-4A are not labeled with these areas as mentioned on page 1 of Chapter III). 18

R645-301-144, Plate I-1 and Exhibit D of the Reclamation Agreement must indicate Section numbers within the Township and Range and must include current information such as County Road #907. 12

R645-301-144.100, The Mining and Reclamation Plan must indicate the documents by type and date of execution and specific lands to which the documents pertain explaining the legal right of entry claimed by the applicant. 12

R645-301-222.200, The official description of the Montwel Series must be included in the application along with the other soil series descriptions provided in Appendix C of Appendix VII-3 22

R645-301-231.100 and R645-301-121.100 and R645-301-121.200, The plan must accurately describe the topsoil salvage activities that have occurred at the site. (1) The description on page 7 of Chapter IV and Figure(s) IV-15 do not match the consultant's report of the activities, nor the Division's collective memory of what has occurred at the 4th East Portal. (2) The last statement on page 7 Chap IV incorrectly indicates that the entire topsoil pile was seeded on August 19, 2003. (A diagram may be necessary.) (3) The last statement on page 7 Chap IV incorrectly describes a warm season species mix being used to seed soil salvaged and added to the topsoil stockpile and berms in August 2003. To avoid confusion, the plan should clearly itemize the seeds in the seed mix and remove reference to a warm season mix, as the mix used contains both warm and cool season species. (See deficiencies written under General Contents Permit Application Format & Contents as well as the Operations Vegetation section for further discussion.). 35

R645-301-231.100 and R645-301-232.200, (1) The soil salvage operation at Emery Deep must be directed by a qualified soils specialist. (2) The eastern half of the south topsoil berm must not be affected by future soil salvage. 35

SUMMARY OF DEFICIENCIES

R645-301-232.200, Plate III-1 does not indicate an additional acre of topsoil removal in the legend. 35

R645-301-232.500, The narrative on page 7a of Chapter IV must include details about cryptogam harvest prior to topsoil salvage such as whether the cryptogams will be salvaged with heavy equipment or manually and to what depth will the surface soils be salvaged? How will the cryptogams be handled? 35

R645-301-244.100, The Permittee should provide the Division with opacity readings of the coal stockpile made in accordance with the Air Quality Approval Order prior to and after implementation of the dust control strategies described in the application, so that the Division may evaluate the treatment methods effect on fugitive dust from the pile. 31

R645-301-244.200, The bonding calculations for the 4th East portal should indicate that the entire 16 acres will be gouged after topsoiling (Worksheet 4B Earthwork Quantity and pages A-12 and A-17 of Appendix IV.B.1). 55

R645-301-244.200, the plan must indicate measures taken to date to stabilize areas along the fence lines affected by vehicle traffic. 53

R645-301-244.200, The sequence of topsoiling, broadcasting of cryptogamic soil and ripping/gouging should be indicated clearly in the reclamation plan outlined in Chapter III of the application as well as the Worksheet in Appendix VI.B.1. 51

R645-301-322.210, The Permittee must provide the results of the TES survey that was conducted in 2003. 21

R645-301-341.300, The Permittee must provide a brief procedure for the cryptogam relocation project (see deficiency written under R645-301-232.500). The Permittee must also mark the area of transplanted cryptogams on the topsoil pile. 38

R645-301-353.250, The Permittee must clarify the type of mulch and that it is noxious weed free for the 1.5-acre project. 38

R645-301-358, The Permittee's measure of success of the Phase 1 controls must include monitoring in the area east of the permit boundary. 32

R645-301-411.144, Using the C1C2 form, the Permittee must relocate Plate X-A-1 and the Montgomery 2003 report to DOGM's confidential files 19

R645-301-422, (1) The application must include the Notice of Intent to modify the Air Quality Approval Order or other relevant correspondence with the Utah Division of Environmental Quality – Bureau of Air Quality. (2) The statement on page 25 Chapter II that no air

R645-301-526.116, The Permittee must state who will do the road construction within the county's right-of-way. If the Permittee does the work then they must show that they have an agreement with the county. (The County Encroachment Permit was also requested under R645-301-115.300 and R645-103-234.100). 30

R645-301-526.220, R645-301-526.221, R645-301-526.222, The plan must include the following additions: (1) A designation in the permit of a stockpile manager, responsible for the construction, implementation and maintenance of the dust control strategies, as well as wind data collection. The supervisor would direct on–site activity, familiarize personnel with the dust control strategies, train individuals to conduct maintenance on the water sprays, water cannon, and wind fence; train truckers in environmentally sound loading techniques, and coordinate all dust control activities. (2) The maintenance plan (Appendix I) requires improvements as discussed on October 8, 2003. (3) A means of providing a working demonstration of the dust controls during inspections. (4) Clarification of the spray points to be implemented in Phase I. (5) Rationale for the engineering of the devices presented, including parameters considered. (6) Addition of the coal-fine disturbed area to the disturbed area. (7) A copy of the application to modify the Air Quality Approval Order. (8) A means to measure of the success of the dust control strategies and to determine when implementation of Phase II is required. (9) An escrow agreement providing assurance of Phase 2 implementation. (10) An explanation for any delay in implementation beyond October 15, 2003. 47

R645-301-526.220, The expansion of the County road for rerouting truck traffic may be employed during Phase 1 or Phase 2 of the dust control strategy, at the discretion of the Permittee, however the maps and plans submitted with this application should reflect the direction the Permittee wishes to take. 30

R645-301-526.222, (1) The means of measuring the success of Phase 1 must be presented in the application. (2) A description of the measures to be employed in Phase 2 and a commitment to employ these measures should Phase 1 be unsuccessful, must be clearly stated in the amendment to the Mining and Reclamation Plan. 29

R645-301-553.140 and R645-301-244.200, Chapter III and the Bonding Worksheet in Appendix IV.B.1 must indicate that the entire site will be gouged to a depth of six inches or one foot. . 51

R645-301-724, The Permittee must include the information recorded to date from the recently installed weather station for wind speed and direction with the application. 19

R645-301-742.300 In the event no diversion structure is constructed along the east side of the 1.5 acre addition by the County, as they rebuild the county road, the applicant shall install a diversion structure (berm or ditch) along the eastern side of the 1.5 acre addition (just west of the road). Any changes will be required to be stable and shown on maps. 41

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

Ownership and control information (Appendix I-1) has been updated with this application. The Emery Mine is wholly owned by Consol Energy, Inc. There are nineteen sister companies also owned by Consol Energy Inc. Consol Energy is owned by Rheinbraun AG of Germany and publically held stock. Rheinbraun AG is owned by RWE AG of Germany. Current information on all the office holders in the aforementioned companies is found in Appendix I-1. The information presented indicates that the narrative on Chapter I, page 6 needs to be re-written to reflect the change in ownership of Consol Energy, Inc.

All permits held by the associated companies are listed in Chapter I, Appendix I-3. Permits are listed for the following states: Virginia, Ohio, Kentucky, West Virginia, Pennsylvania, Illinois, North Dakota, New Mexico, Tennessee, and Wyoming.

Findings:

The information provided does not meet with the requirements for Identification of Interests. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-112.320, The narrative on Chapter I, page 6 needs to be re-written to reflect the change in ownership of Consol Energy, Inc as presented in Appendix I-1.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

Current violation information is provided in Appendix I-4 of Chapter I. In the last three years, the associated companies received 204 violations of which 157 were abated and terminated, 13 were withdrawn, and 34 are pending. Six violations were written for dust control

in the last three years. One in West Virginia (U-1025-92 (9), issued 4/28/03, is still pending. The Utah violation N-03-39-1-1 is being addressed with this application.

Findings:

The information provided meets the requirements of the Regulations.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

The right of entry is established in the MRP Appendix I-2 and Plate I-1. The owners of record are listed in order of Section, Township and Range. There are no Sections identified on Plate I-1, however. Right of Entry for surface activities for the road and monitoring facilities north of the topsoil and subsoil stockpiles on land owned by Glendon E. Johnson and the Right of Entry for a portion of the main mine facilities shown as disturbance on land owned by M. Robertson (Plate I-1). Documents supporting the applicant's surface use of these lands must be identified by type and date of execution in the Mining and Reclamation Plan.

Findings:

The information provided in the MRP and in the Exhibit D of the Reclamation Agreement is not adequate to establish Right of Entry. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-144, Plate I-1 and Exhibit D of the Reclamation Agreement must indicate Section numbers within the Township and Range and must include current information such as County Road #907.

R645-301-144.100, The Mining and Reclamation Plan must indicate the documents by type and date of execution and specific lands to which the documents pertain explaining the legal right of entry claimed by the applicant.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

The County encroachment permit must be provided as per R645-301-115.300 and R645-103-234.100. The Planning and Zoning Commission meeting in Green River on September 10, 2003 included the following agenda item: "6. Consol Conditional Use Permit Action Item" (construction on County road 915 at the Emery Deep Mine site as described in this amendment). A copy of the advertisement for the public hearing must be provided to meet the requirements of R645-103-234.

Findings:

The information provided does not meet the requirements of the Regulations. Prior to approval, the Permittee must provide the following in accordance with:

R645-103-234, The Permittee must provide an Affidavit of Publication from the legal notice placed in the local newspaper for the Planning and Zoning Commission meeting held in Green River on September 10, 2003.

R645-301-115.300 and R645-103-234.100, The County encroachment permit must be provided.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

The permit was issued, effective January 8, 2001 and will expire in January of 2006. According to the Administrative Overview the permit was issued for 5,180 acres. However the MRP relates that the Emery Deep Mine permit area is 5,060 acres (Chap IV p 1). This change occurred as part of Amendment 95B and was incorporated in December 1997. The 120 acres deleted from the permit is a result of a lease relinquishment in the southwest corner of the permit area and subsequent revised R2P2. The area removed from the permit forms an upside-down "L" shape in the south west corner of the permit boundary (personal communication with John Gefferth and Tim Kirschbaum, October 10, 2003).

Findings:

The information provided meets the requirements of the Regulations.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

Within four weeks of the last publication date, the application must include a copy of the legal notice advertising the Emery County Planning and Zoning Commission meeting on September 10, 2003 in Green River, during which the plans for the expansion of County Road 915 were discussed.

Findings:

The information provided does not meet the requirements of the Regulations for R645-301-117.200 (see deficiency written under R645-103-234.

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

The amendment states that the water cannon(s) will remain operating until wind speed is "below the threshold level for triggering the system" (pg. 9). John Gefferth, however, stated that the system will shut off, irrespective of wind speed, once the water saturates the coal stockpile. The Permittee must clarify the sentence on page 9 to reflect Mr. Gefferth's statement made on October 7, 2003 (see Operations Support Facilities section for details).

Chapter 10, page 11 shows a site for Appendix A: intermountain antiquiteis site form. The Permittee, however, does not include the form or mention that the form is in confidential files. The Permittee must clarify the location of the form (R645-301-121.200).

The amendment refers to cool and warm season interim seed mixes. The two seed mixes contain neither entirely cool nor warm season species, but contain a combination of warm and cool season species. The Permittee must change all references to warm and cool season seed mixes, in the amendment and MRP, to reflect the actual type of the seed mix (R645-301-121.200**;** see Operations Vegetation for more details).

Throughout this amendment, many pages are not numbered, technical reports are not in appendices, appendices are without tabs, appendices and maps are in wrong chapters, page

numbers are incorrect, and many other editorial mistakes. The Permittee must organize and correct the editorial mistakes this amendment. (Chapter III is notably unclear.)

Findings:

Information provided in the application is not considered adequate to meet the minimum Permit Application Format and Contents section of the General Contents regulations. Prior to approval, the Permittee must act in accordance with the following:

R645-301-121.200, (1) The Permittee must clarify whether the shut-off mechanism for the water cannon will be wind speed as stated on the sentence on page 9 or whether the shut-off threshold will be pile saturation as stated by Mr. Gefferth on October 7, 2003. (2) The Permittee must clarify the location of The Intermountain Antiquities Site form (Appendix A of Appendix 5-7 Chapter X). (3) The Permittee must change all references to warm and cool season seed mixes, in the amendment and MRP, to reflect the designation in the MRP (restating the seed in the mix may be helpful should seed mixes change over time). The following are a *few* examples of locations where warm and cool descriptors are used in the application: (a) Amendment, Chapter III, no page number, section "Worksheet – Revegetation". (b) Amendment, Chapter III, page 21. (c) Amendment, Chapter IV, pages 7, 7a. (d) Amendment, Chapter IV, map "Reconfigured topsoil stockpile abatement". (4) The Permittee must organize and correct the editorial mistakes this amendment. (5) There are two plates with the label Plate IV-15.

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

Dr. Patrick Collins of Mt. Nebo Scientific, Inc. evaluated the 1.5-acre area east of the 4th east portal in the spring of 2003(Appendix VIII 3).

Montgomery Archaeological Consultants surveyed 40 acres east of the 4th east portal in 2003.

Norwest Corporation provided the CONSOL Energy: Fugitive Dust Control Plan for the 4th east portal area of the Emery Mine. The consultants informally presented the proposed dust control plan on August 26, 2003. The Permittee incorporated Norwest's plan in this amendment (Chapter X, Part C – Air Quality). The qualifications of the Norwest Corporation or its personnel did not accompany the application.

Findings:

The information provided in the application does not comply with the requirements for Reporting of Technical Data. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-132, The qualifications of Norwest Corporation must accompany the submittal.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

Maps accompanying the application must include the County Road 907 that was completed in 2002. i.e Cultural Resource Plate X.A-1, 4 East Portal Disturbance Area Plate III-1, Pre and Postmining Topography, Plate III-5.

Findings:

The information provided in the application does not comply with the requirements for Maps. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-141, Maps accompanying the application must include the County Road 907 that was completed in 2002. i.e Cultural Resource Plate X.A-1, 4 East Portal Disturbance Area Plate III-1, Pre and Postmining Topography, Plate III-5.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The Permittee will add 1.5 acres to the permit area of which 1.0 acre will be disturbed. The pre-disturbed contours are shown on Plate III-5, 4th East Portal Site Pre & Postmining Topography Plane View. The map is adequate to show the addition of the 1.5 acres at the 4th East Portal site.

Chapter III, page 2, Table II-2 lists the Existing and Future Surface Disturbance Acres at the Emery Mine. This table shows that the area at the 4th East Portal has increased by 1.00 acre to 16.0 acres; and that there will be a 0.5 acre increase in the Proposed Near Future Disturbance Area, bringing its total to 86.2 acres. The potential surface operations area is listed as 289.6 acres. The total existing and future disturbance areas are listed as 442.5 acres. The location of these areas are shown on Plates III-1 through III-4A. (Plates III-2 and III-3 could not be found in the MRP filed in the Division's SLC Public Information Center, but are available at the Price field Office copy of the MRP.)

The Division understands that there are 248.5 bonded acres within the permit area; that the permit area is between 5060 and 5180 acres large. The Division calculates from Table III-2 that there currently area 66.7 acres of disturbance currently at the Emery Mine. The Division is uncertain as to the location of the 86.2 acres of Proposed Near Future Disturbance Area and as to the location of 41.1 acres of the 289.6 acre Potential Surface Operations Area (289.6 potential disturbance – 248.5 bonded = 41.1 acres).

The potential for such a sizeable surface operations area should be re-evaluated after the reclamation investigation described on page 4a, Chapter III is completed. I(See discussion under Operations Vegetation).

Findings:

The information provided in application is requires clarification. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-142, The relationship of the 248.5 acre bonded area (Exhibit D) to the 289.6 acre Potential Surface Operations Area and the 86.2 acres of Proposed Near Disturbance Area (Table III-2) should be described and the information detailed in Table III-2 must be accompanied by Maps outlining the areas described. (Plates III-1 through III-4A are not labeled with these areas as mentioned on page 1 of Chapter III).

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

Montgomery Archeological Consultants surveyed 40 acres of the Emery Mine including the 4th east portal as well as powerline corridor in 2002. The same firm surveyed an additional 40 acres east of the 4th east portal that includes the 1.5 acre expansion area in March 2003 (Chapter 10 Part A; Appendix 5-7). The 2003 Montgomery results show a site east of the Emery Mine permit boundary. The site number is 42EM2961 and consists of lithic debitage and tools of rock and stone (survey, pg. 6). This site is considered eligible to the NRHP (survey, pg. 7).

The historic site 42EM2961 is near two county roads and may be easily seen from the roads. The consultants installed a fence along the site boundary to help protect this historic site. The fence is marked with fluorescent ribboning. The Permittee did not know who marked the fence (field visit July 28, 2003). The Division is currently investigating whether ribboning is needed to keep the area protected. The area of impact caused by coal fines possibly includes this historic site. The Division will evaluate possible impacts to the site caused by fugitive coal fines.

The consultants determined that with the installation of the fence, there is "No Historic Properties Affected". In accordance to R645-301-411.142, the Division will seek to obtain clearance by SHPO (State Historic Preservation Officer) for this site.

Chapter X, page 11 shows a site for Appendix A: Intermountain Antiquiteis site form. The Permittee, however, does not include the form or mention that the form is in confindential files. The Permittee must clarify the location of the form (R645-301-121.200; see General Contents for the deficiency).

Plate X-A-1 shows all cultural sites near the Emery Mine including 42EM2961. Appendix 5-7 (Chapter X) also provides a map (Figure 1) showing the cultural site 42EM2961. Maps showing historic and cultural sites are considered confidential. Using the C1C2, the Permittee must relocate Plate X-A-1 and the Montgomery 2003 report in DOGM's confidential files (R645-301-411.144).

Portions of the Emery Mine permit area is part of the National Trails System in 2002. The amendment refers to Plate X-A-1 to see this designated trail. The map provides a narrative piece discussing this trail.

Findings:

Information provided in the application is not considered adequate to meet the minimum Historic and Archeological Resource Information of the Environmental Resource Information requirements. The Permittee must clarify the location of the form for Appendix A (See General Contents for the deficiency). In addition, prior to approval, the Permittee must act in accordance with the following:

R645-301-411.144, Using the C1C2 form, the Permittee must relocate Plate X-A-1 and the Montgomery 2003 report to DOGM's confidential files

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Analysis:

Climatological information is provided in Chapter X Part B of the MRP. The Permittee installed a weather station at the main Emery Mine facilities and initial data were anticipated by January 2003 (Chap. X, Part B, page 5). This weather station collects rainfall, snowfall and record wind speed and direction as well as barometric pressure and temperature.

Findings:

The information provided does not meet the minimum requirements for Climatological Information. Prior to approval, the Permittee must provide the following information, in accordance with:

R645-301-724, The Permittee must include the information recorded to date from the recently installed weather station for wind speed and direction with the application.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Dr. Patrick Collins of Mt. Nebo Scientific, Inc. evaluated the 1.5-acre area east of the 4th east portal in the spring of 2003(Appendix VIII 3). The consultant added the 1.5-acre site to the 4th east portal vegetation map that shows primary plant communities. The consultant did not visit the 1.5-acre site to assign plant communities, but assigned the communities by reviewing photos of the site. Dr. Collins reasons that colored photographs of the site is adequate to evaluate such a small parcel of land. The primary plant community of the 1.5-acre is shadscale. There is a small portion in the northern corner of the proposed site that is a greasewood community.

Findings:

Information provided in the application is considered adequate to meet the minimum Vegetation Resource Information section of the Environmental Resource Information regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

Dr. Collins did not survey for TES species, but recommends for the Permittee to survey for these plant and animal species in the spring and summer of 2003. The Permittee must provide the results of the TES survey that was conducted in 2003 (as per R645-301-322.210).

JBR Environmental Consultants conducted a fish and macroinvertibrate survey for Emery Mine in 2002 and 2003. The report for 2003 is more comprehensive than the 2002 report. The contractor will submit the report at the end of 2003 or in 2004. The Division does not require the 2003 report to review the current dust control plan.

Findings:

Information provided in the application is not considered adequate to meet the minimum Fish and Wildlife Resource Information section of the Environmental Resource Information regulations. Prior to approval, the Permittee must act in accordance with the following:

R645-301-322.210, The Permittee must provide the results of the TES survey that was conducted in 2003.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

Appendix VII-3 summarizes the information known about the 4th East Portal site from the 1981 survey conducted by James P. Walsh & Associates, Inc. of Boulder Colorado.

Addendum 1 to Appendix VII-3 documents a 4th East Portal site survey conducted on May 31, 2003 by Mr. James Nyenhuis, Certified Professional Soil Scientist. This survey revised the original soils map, Plate VII-1, for the 4th East Portal Area. The revised map showed less rockland and larger areas covered by Castle Valley soils (now called Hideout Series). The map also included areas of Montwell series soils and Begay series soils.

This submittal provides Appendix VII-4, Letter from Mt. Nebo Consultants – Append 1.45 Ac Area to 4th East Portal Area. The Appendix VII-4 describes Mr. Nyenhuis' March 13, 2003 site visit to survey and map the soils eastward to the County Road. (Note: the revised soil map contains soil series names that differ slightly from those in the consultant's letter of March 26, 2003.)

The following soil series were mapped by Mr. Nyenhuis:

Hideout Soil Series = Loamy, mixed, superactive, calcareous, mesic Lithic Ustic Torriorthents;
Montwel Soil Series = Fine-loamy, mixed, superactive, calcareous, mesic Typic Torriorthents;
Begay Soil Series = Coarse-loamy, mixed, superactive, mesic Ustic Haplocambids;
Persayo Soil Series = Loamy, mixed, calcareous, mesic, shallow Typic Torriorthents;
Chipeta Soil Series = Clayey, mixed, active, calcareous, mesic, shallow Typic Torriorthents.

The area of boundary extension is dominated by Castle Valley soils, but includes the Persayo Series and a pocket of Montwel Series (App VII-4 Soils Map). [The Castle Valley series has been renamed Hideout by the Natural Resources Conservation Service (NRCS).] Appendix C of Appendix VII-3 describes the Hideout and Persayo Series.

HIDEOUT SERIES: Depth of the surface horizon is between 2 and 4 inches. Rock is encountered between six and twenty inches at the 4th East Portal. Specific depths to bedrock were recorded on the Soils Map, Addendum 1 to Appendix VII-3.

PERSAYO SERIES: A four inch topsoil layer is underlain by an eleven inch C layer. Calcareous weathered shale and siltstone is expected at fourteen inches. Coarse fragments are range from 0 - 15 percent. **These soils are dry in all parts of the moisture control section for more than three-fourths of the time that the soil temperature is above 41 degrees F. Peak periods of precipitation occur during late summer.**

MONTWEL SERIES: no information provided.

These shallow soils are particularly susceptible to the extremes of temperature imposed by coal fine accumulations.

Findings:

The information provided does not meet the minimum requirements for Environmental Resource Soils. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-222.200, The official description of the Montwel Series must be included in the application along with the other soil series descriptions provided in Appendix C of Appendix VII-3.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

This submittal proposes adds an additional 1.5 acres of rangeland to the permit area. The 1.5 acres falls under the category of "semi-desert shallow loam range site" described on page 3 of Chapter X, Part D.

Findings:

The information provided meets the requirements of the Regulations.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

Alluvial Valley Floor Determination

The 1.5 acres to be added to the permit area falls in Section 27 of T22S, R6E in the headwaters of Christiansen Wash.

Chapter XI of the MRP details the Permittee's analysis of the existence of alluvial valley floors (AVF) within the permit boundary (Chap XI, page 2). The study indicates that the two soils of agricultural importance are the Ravola loam and the Penoyer loam, both with 1 – 3% slopes (Chap XI, page 20). The study further indicates that Christiansen Wash is so incised as to be useless for flood irrigation and that Christiansen Wash receives its flow predominantly from diverted agricultural return flows from Muddy Creek (Chap XI, page 6).

The conclusion reached earlier by the Division that AVF's do not exist along Christiansen Wash remains unchanged (February 25, 1985, Technical Analysis, p 28). In the same document the Division concluded that there were AVF's in areas I and II shown on Plate XI-1.

Findings:

The Division determined in 1985 that an AVF exists in Sections 19 and 30 T. 22 S. R. 6 E. Salt Lake Meridian. There is not an AVF in the NE1/4 of Section 27, T. 22 S. R. 6 E. Salt Lake Meridian, where the 4th East Portals are located.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Analysis:

The area has shallow soils without irrigation and could not support farming. The addition of this 1.5 acres does not change the Division's assessment of the existence of prime farmlands within the permit area in Sections 20, 22, 29, 30 and 31 of T22S, R6E (February 25, 1985, Technical Analysis, p 41). These locations were shown on Plate 8-3 of the 1981 permit application. Plate 8-3 showed the 4th East Portal location as being Wildlife and Grazing with

pasture land immediately north of the disturbed area. Plate 8-3 has been superceded by Plate VIII-1.

Findings:

The Division finds that there are prime farmlands within the permit area, but not within the area of 4th East Portal development, NE1/4 of Section 27, T. 22 S. R. 6 E. Salt Lake Meridian. The information provided meets the requirements of the regulations for the 1.5 acre addition to the permit area.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

The Division considers the affected area to be the permit area plus any additional areas that might be included in the future. Plate UG Operations Plan shows the projected expansion areas. However, the 1.5 permit addition is not shown on that map. Not all of the affected area is shown on Plate UG-Operations Plan. The Permittee needs to show the affected area on one map.

Cultural Resource Maps

Plate X-A-1 shows all cultural sites near the Emery Mine inlcuding 42EM2961. Appendix 5-7 (Chapter 10) also provides a map (Figure 1) showing the cultural site 42EM2961. Maps showing historic and cultural sites are considered confidential. The Permittee must relocate Plate X-A-1 and the Montgomery 2003 report in DOGM's confidential files (R645-301-411.144; see Historical and Cultural for the deficiency).

Existing Structures and Facilities Maps

There are no existing structures or facilities in the permit expansion area.

Existing Surface Configuration Maps

Plate III-5 show the pre and post mining topography for the 4th East Portal area. The map scale is 1 inch equals 200 feet. The scale is inadequate for the Division to use to assess the pre-

mining conditions. The Permittee needs to increase the scale to at least 1 inch equal 100 feet. In addition, Plate III-5 is not certified as required by the regulations.

Mine Workings Maps

There are no changes to the mine working areas.

Permit Area Boundary Maps

The Division needs one map that shows the entire permit boundary. Without that map, anyone reading the MRP would have a difficult time determining where the permit boundaries are.

Findings:

Information provided in the application is not considered adequate to meet the minimum Maps, Plans, and Cross Section Resource Information section of the Environmental Resource Information regulations. The Permittee must relocate Plate X-A-1 and the Montgomery 2003 report in DOGM's confidential files (See Historical and Cultural for the deficiency). In addition, before approval, the Permittee must provide the following in accordance with:

R645-301-521.150 and R645-301-521.190, The Permittee must give the Division a maps that shows the pre and postmining topography at a scale of 1 inch equals 100 feet or smaller.

R645-301-512.130, The Permittee must have the pre and postmining topography maps and cross-sections certified by a registered professional engineer.

R645-301-521-141 and R6545-301-521.190, The Permittee must show on one map or a series of connected maps the affected area boundaries. Those boundaries include areas for which additional permits might be sought.

R645-301-521.132, The Permittee must give the Division one map that shows the entire permit boundary. The Permittee also needs to designate one map as the official permit boundary map, and state so in the text and on the map.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The Permittee submitted this amendment in response to violation for allowing coal fines to blow outside of the disturbed area (N03-39-1-1). The Permittee has developed a plan to control coal fines by modifying existing structures and adding new ones such as:

- Relocate the adjacent topsoil berm and salvage undisturbed topsoil
- Reroute the access/haul road
- Jersey barriers
- Wind fence
- Water Cannon
- Cattle guard

The topsoil relocation and salvage are discussed in detail in the soils section of the TA.

The purpose of the haul road modification is to reduce the amount of time and length of travel for coal trucks within the disturbed area. Further discussion of this issue is found under Operations Plan Support Facilities and Utility Installations.

Magnesium chloride will be applied to the haul road at the rate recommended by the vendor. Magnesium chloride is a standard industrial practice to control dust on roads.

Water cannons have been used to control dust emissions. The Division contacted vendors who stated that water cannons have been used world wide to control dust. The major concern at the Emery Deep Site is freezing. Freezing can be control by the use of drains that are activated when the system shutdown. To ensure that the system is working properly regular checks of the equipment are part of the maintenance plan. The Division may request a demonstration of the equipment function during inspections.

The Jersey barriers will be used to prevent coal from spilling outside the coal stockpile area. Jersey barriers are used to prevent material movement. The Division will inspect the barriers to ensure there are no gaps.

Wind fences can reduce wind speed, which reduces the amount of coal fines that become airborne. A critical factor for the effectiveness of wind fences is placement. The Permittee committed in the maintenance schedule to evaluate the location of the wind fence after installation. The wind fences work by reducing the wind speed at or near the ground. Idaho Department of Environmental Quality recommends wind fences to reduce dust.

No literature could be found that specifically recommends cattle guards for reducing dust. If the cattle guards work by removing coal from the truck tires, the structures would be helpful. If the structures do not work, they would cause no harm

The best way to prevent coal fines from blowing off site is to prevent coal fines from being created. If the new crusher can reduce the amount of coal fines then the machines are helpful. The Division contacted crusher manufactures and they recommended roll crushers for reducing coal fines. They did say that no matter what type of crusher is used, coal fines will be created and if nothing else is done, coal fines from the stockpile will remain a problem.

The combination of equipment and procedures proposed by the Permittee will reduce coal fines from going off site. If the control strategies outlined in Phase 1 of Appendix X.C.3 fail to eliminate the off-site deposition of the coal dust, then the Permittee has committed to implementing Phase 2 of the control strategy.

To adequately determine whether abatement measures are effective for the protection of vegetation and wildlife, the Permittee must install some type of montoring system to track coal fines. Some ideas were floated during a conference call with the Permittee on October 8, 2003. This system may include coal fine collection boxes to measure the volume of coal fines accumulating off-site. The application must include a description of such a monitoring system. The Permittee and Division may want to consult with the Division of Air Quality or other agencies to determine the most effective method for data collection and analysis.

The measurement of the success of Phase 1 must be presented in the application. A description of the measures to be employed in Phase 2 and a commitment to employ these measures should Phase 1 be unsuccessful, must be stated in the plan. Such a statement is found as a notation to Appendix X.C-3, but a commitment of this magnitude must not be buried in the Appendix.

Findings:

The information provided in the amendment is not adequate to meet the minimum requirements of the Regulations. Prior to approval the Permittee will provide the following in accordance with:

R645-301-526.222, (1) The means of measuring the success of Phase 1 must be presented in the application. (2) A description of the measures to be employed in Phase 2 and a commitment to employ these measures should Phase 1 be unsuccessful, must be clearly stated in the amendment to the Mining and Reclamation Plan.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

There are no public parks or places of historic interest within the proposed 1.5 acre addition to the permit area (Chapter X, Appendix 5-7).

Findings:

The information provided meets the requirements of the Regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Analysis:

The Permittee does not propose to relocate or use a public road within the disturbed area. The Permittee does propose to add a mine access/haul road that will join the county road know as "Cowboy Mine Road No.915 as shown on Plate IV-3b.

The Permittee does propose to extend the disturbed area so that disturbed area will be adjacent to part of the Cowboy Mine Road. The strip of land to be added to the disturbed area is triangular in shape and 490 feet long. The north 260 feet of the proposed disturbed area is already within 100 feet of the county road.

The only activities scheduled for construction in the newly disturbed area are: salvaging topsoil, removing coal fines, constructing a access/haul road and reclaiming the area during final reclamation. The Permittee has already made a commitment to use flagman during activities that are within 100 feet of a public road. The Division believes that procedure is adequate to protect the public.

The Permittee plans to widen the Cowboy Mine Road and construct part of the mine access road within the county's right-of-way. The Permittee must state who will do the construction within the county's right-of-way. If the Permittee will do the work, they must show an agreement with the county.

During a telephone conference on October 8, 2003 with John Gefferth of Consol Energy, John Richardson and John Trygstad of Norwest Energy, the Division indicated that the expansion of the County road for rerouting truck traffic could be part of the Phase 2 control strategies to be implemented if and when the controls of Phase 1 failed to control off-site deposition of coal fines. The placement of the road expansion in Phase 2 would be at the discretion of the Permittee, but the maps and plans should reflect the direction the company takes.

Findings:

The information provided in the amendment is not adequate to meet the minimum requirements of this section of the regulations. Before the amendment can be approved, the Permittee must the following in accordance with:

R645-301-526.116, The Permittee must state who will do the road construction within the county's right-of-way. If the Permittee does the work then they must show that they have an agreement with the county. (The County Encroachment Permit was also requested under R645-301-115.300 and R645-103-234.100).

R645-301-526.220, The expansion of the County road for rerouting truck traffic may be employed during Phase 1 or Phase 2 of the dust control strategy, at the discretion of the Permittee, however the maps and plans submitted with this application should reflect the direction the Permittee wishes to take.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

Analysis:

The facility will include a screening/crusher building, and a 10,000 ton processed coal stockpile along with associated conveyors. The facility will handle a capacity of approximately 1,300,000 tons of coal per year (page 17b, Chapter II).

Appendix X.C-2 contains the Air Quality Approval Order (AO) from the Division of Air Quality dated August 5, 2002. The AO itemizes following at the 4th East portal site.

- The production limit of 1,300,000 tons/yr should not be exceeded
- The ROM surge pile may contain 1500 tons maximum.
- The maximum time period of operation for the 425 hp diesel generator should be 300 hours of operation /12 mo period (using #2 diesel fuel oil).
- Visible emissions from conveyor transfer points should not exceed 10% opacity and emissions from all other sources should not exceed 20% opacity. Observations of opacity are to be made in accordance with 40 CFR 60.11 (b) and 40 CFR 60, Appendix A, Method 9.

Chapter II, page 25 includes a statement that no air monitoring has been proposed at the site. The air quality approval order specifies air monitoring at the site for existing facilities and vehicles. The Division recommends that the Permittee designate an individual who will be responsible for the monitoring and record keeping required by the Air Quality permit.

This submittal outlines additional controls for fugitive dust control at the 4th East Portal site (Chapter X, page 5a and Appendix X.C-3). Accordingly, the AO must be modified. A copy of the Notice of Intent (NOI) to modify the AO was requested during a meeting between the Division and Consol Energy on August 26, 2003, but was not received with this submittal.

Findings:

The information provided does not meet the minimum requirements for Air Pollution Control Plan. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-422, (1) The application must include the Notice of Intent to modify the Air Quality Approval Order or other relevant correspondence with the Utah Division of Environmental Quality – Bureau of Air Quality. (2) The statement on page 25 Chapter II that no air monitoring is proposed is in error, the Air Quality Approval Order requires monitoring by the Permittee.

R645-301-244.100, The Permittee should provide the Division with opacity readings of the coal stockpile made in accordance with the Air Quality Approval Order prior to and after implementation of the dust control strategies described in the application, so that the Division may evaluate the treatment methods effect on fugitive dust from the pile.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Subsidence Control Plan

The new permit and disturbed area are outside the subsidence limits. Therefore, the subsidence plan does not have to be modified.

Findings:

The information provided in the amendment meets the minimum regulatory requirements of this section of the regulations.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

Increasing the disturbance area by 1.5 acres will include the removal of the topsoil and native vegetation and animal life. This removal certainly will not protect the environment, as it existed prior to removal. If the Permittee's dust control plan is not effective, then the area of impact will widen to the soil, vegetation, and wildlife east of County Road 915. (R645-301-358). Monitoring of the coal fine accumulations east of the County Road 915 is warranted.

Findings:

Information provided in the application is not considered adequate to meet the minimum Fish and Wildlife Information section of the Operation Plan regulations. Prior to approval of this amendment, the Permittee must act in accordance with the following:

R645-301-358, The Permittee's measure of success of the Phase 1 controls must include monitoring in the area east of the permit boundary.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Previously Conducted Removal and Storage Activities:

Chapter II, page 17a indicates that the topsoil storage pile holds 7,900 cu yds of topsoil. The berms surrounding the north and west sides of the topsoil storage site are formed of topsoil as is the berm on the west perimeter of the disturbance boundary. Together these berms contain 1,400 cu yds of topsoil.

The Division believes that the topsoil berms surrounding the stockpile are all formed of topsoil as is the "berm" along the west perimeter. In truth, along the west perimeter, the soil profile was never disturbed to construct a berm. A cut in the ground surface created the "berm."

The method of topsoil salvage described on page 7 of Chapter IV differs from that described by the consulting soil scientist who was on site during the soil salvage (Addendum 1 to App VII-3). Mr. Jim Nyenhuis described salvage of the soils from the north (Persayo-Chipeta map unit) to the south [Castle Valley (or Hideout) and Montwell map units], with the Castle Valley soils being placed on the top of the topsoil storage pile.

Sometime in June 2003, topsoil was removed from the berm in the vicinity of the loadout and placed along the west side of the topsoil stockpile and along the west perimeter "berm" of the disturbed area. The topsoil placement during these salvage activities is not accurately described on Figure IV-15.

On August 19, 2003, in response to N-03-38-1-1, the topsoil berm along the west end of the topsoil stockpile, the west side of the topsoil stockpileand the south fence line of the disturbed area (disturbed by vehicle traffice during the installation of a transmission line) were broadcast seeded and hydromulched. The last statement on page 7 Chap IV indicates that the entire topsoil pile was seeded at this time. This is incorrect. In addition, this statement described a warm season species mix. In fact, the species mix used is outlined on page VIII-20 Section VIII.C.3 of the MRP, except that yellow sweet clover was omitted from the mix. A copy of the seed tag for the August 19, 2003 seeding was received from the Permittee on September 22, 2003. This same mix was used on the 4th East portal topsoil stockpile southern berm.

The plan should clearly describe the species in the seed mix and remove reference to a warm season mix, as the mix used contains both warm and cool season species. (See deficiencies written under General Contents Permit Application Format & Contents as well as the Operations Vegetation section for further discussion.)

Topsoil berms are drawn on a second Figure IV-15. The illustration in this figure does not agree with the Division's understanding of the location of topsoil at the site.

Proposed Activites:

Chapter III Reclamation Plan, page 21 indicates that an average of nine inches topsoil (or 1200 yards) will be removed from the additional acre to be disturbed east of the existing permit boundary fenceline. The soil map in Appendix VII-4 supports this evaluation, although an average of ten inches of soil over rock may be available, bringing the volume to 1344 cu yds. Since every yard of topsoil is needed, the plan must indicate that the topsoil salvage operation will be directed by a qualified soils specialist.

Chapter IV page 7a describes a process of harvesting existing cryptogams from the surface of the 1.0 acres before disturbance and before topsoil salvage. The harvested cryptogams will be placed on the topsoil stockpile and the location(s) marked and recorded for future evaluation. The following questions remain concerning cryptogam salvage: Will the cryptogams be harvested manually and collected in buckets for respreading or will equipment be used. To what depth will the surface soils be salvaged?

Chapter IV, page 7a further describes that the southwest corner and south berm of the stockpile will be pushed inward to accommodate the placement of soil salvaged from the additional 1.0 acre of disturbance and the topsoil currently in-place between the water tank and the topsoil. The newly salvaged soils will be used to re-build the berm. This concept is illustrated on Plate IV-15. The Division can agree with this concept, except that the soils that are currently on the eastern half of the south topsoil berm must not be disturbed as they are part of an ongoing reclamation treatment study.

Plate III-1 does not indicate an additional acre of topsoil removal in the legend.

Findings:

The information provided does not meet the minimum requirements for Topsoil and Subsoil Salvage. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-231.100 and R645-301-121.100 and R645-301-121.200, The plan must accurately describe the topsoil salvage activities that have occurred at the site. (1)

The description on page 7 of Chapter IV and Figure(s) IV-15 do not match the consultant's report of the activities, nor the Division's collective memory of what has occurred at the 4th East Portal. (2) The last statement on page 7 Chap IV incorrectly indicates that the entire topsoil pile was seeded on August 19, 2003. (A diagram may be necessary.) (3) The last statement on page 7 Chap IV incorrectly describes a warm season species mix being used to seed soil salvaged and added to the topsoil stockpile and berms in August 2003. To avoid confusion, the plan should clearly itemize the seeds in the seed mix and remove reference to a warm season mix, as the mix used contains both warm and cool season species. (See deficiencies written under General Contents Permit Application Format & Contents as well as the Operations Vegetation section for further discussion.).

R645-301-231.100 and R645-301-232.200, (1) The soil salvage operation at Emery Deep must be directed by a qualified soils specialist. (2) The eastern half of the south topsoil berm must not be affected by future soil salvage.

R645-301-232.200, Plate III-1 does not indicate an additional acre of topsoil removal in the legend.

R645-301-232.500, The narrative on page 7a of Chapter IV must include details about cryptogam harvest prior to topsoil salvage such as whether the cryptogams will be salvaged with heavy equipment or manually and to what depth will the surface soils be salvaged? How will the cryptogams be handled?

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The Division requires that the Permittee retain the integrity of the eastern portion of the southern perimeter berm of the topsoil stockpile. The Permittee seeded this eastern portion of the berm in July 2002 with a "warm" season, interim seed mix (Chapter VIII, pg. 20). Although the seed mix is not entirely composed of warm season plant species, the Permittee must continue to monitor the application of this trial mix as part of the Emery Mine reclaimability study (refer to R645-301-341.300).

The amendment refers to cool and warm season interim seed mixes. The two seed mixes contain neither entirely cool nor warm season species, but contain a combination of warm and cool season species. The Permittee must change all references to warm and cool season seed

mixes, in this amendment and MRP, to reflect the actual type of the seed mix (R645-301-121.200; see General Contents for the deficiency). The Division suggests replacing the name "warm" and "cool" season interim seed mixes with native and non-native interim test seed mixes, respectively. Note that the native interim seed mix contains a high diversity of plant species, whereas the non-native mix contains a relatively low diversity of species.

This memo will refer to these two seed mixes as Native (warm) and Non-native (cool) mixes from this point forward.

The Permittee stabilized the topsoil stockpile at the 4th East Portal by gouging the top and sides of the topsoil stockpile, hydroseeding, and mulching (Ch. IV, p. 7a). The Permittee hydroseeded the top and sides of the topsoil stockpile with the non-native interim seed mix, while traditional broadcast seeding 1/3 of the southern berms with the native interim seed mix. The two seed mixes are neither entirely cool nor warm season species, but both mixes are a combination of warm and cool season species. The following table shows the species used for both mixes and provides the photosynthetic pathway used by these species.

NATIVE - INTERIM MIX ("WARM SEASON" Chapter VIII, pg. 20)	**ACTUAL PHOTOSYNTHETIC PATHWAY** **COOL = C3 PATH WARM = C4 PATH**
Shadscale	Cool
Fourwing saltbush	Warm
Castle valley clover	Unknown at this time
Streambank wheatgrass	Cool
Scarlet globe mallow	Cool
Winterfat	Cool
Blue grama	Warm
Indian rice grass	Cool
Alkali sacaton	Warm
NON-NATIVE - INTERIM MIX ("COOL SEASON" Chapter VIII, pg. 20)	
Crested wheatgrass	Cool
Fourwing saltbush	Warm
Russian wildrye	Cool

Chapter III, page 5 shows a third interim seed mix. This mix is supposedly for areas that need "temporary stabilization". One major principle behind applying seed to any disturbed site is to stabilize the area. It is unclear why there are three interim seed mixes: "warm", "cool", and "temporary stabilization". Because there are three interim seed mixes, the Permittee must consult with the Division to determine which interim seed mix to use on all projects prior to seeding (R645-301-341.210). Another option is for the Permittee to do the following:

- Use the sterile, quick-growing seed "Tritical" for single-season stabilization needs.
- Remove the "cool" season interim mix from this amendment and MRP.
- Replace the "warm" season interim mix with a "native" seed mix that includes the recommendations by NRCS during a visit on July 22, 2003.

The Division will review all seed mixes as part of the scope of work for the four-phase vegetation study that is currently in process.

The MRP discusses standard revegetation methods to be used at final reclamation. In 20 years, Emery Mine has not successfully vegetated any disturbed site within the permit area. Because of this problem, the Permittee committed to follow a four-phase vegetation study (Chapter III, Page 4b of the MRP). The Division determined that demonstrating that disturbances can be reclaimed is important to obtaining future approval for site disturbance. The Division may require live transplants, irrigation and/or soil amendments to establish vegetation. The Permittee must show repeated and continuous efforts to establish vegetation at Hidden Valley Mine and Emery Mine. The Division may require innovative revegetation procedures and additional materials based on the results of the four-phase vegetation study.

In phase I, the Permittee will investigate and summarize past reclamation sites and practices at the Emery and Hidden Valley Mines. In phase II, based on those investigations, and in consultation with the Division, the Permittee will implement the best techniques demonstrated to be successful. In phase III, the applied techniques will be evaluated qualitatively annually and quantitatively between the 4^{th} and 6^{th} year. These evaluations will be correlated to the precipitation data results obtained from an on-site weather station and incorporated into the annual report. Results of the phase III evaluations may result in additional field trials.

The Permittee submitted a scope of work for only phase I of this study on April 1, 2003. The Permittee will submit the results of the study in late fall of 2003 or winter of 2004. At that time, the Permittee, contractor, and Division will determine the steps and procedures for Phase II.

The Permittee reworked and reseeded part of the topsoil pile in the late summer of 2003. Chapter IV, page 7 briefly describes this project. The Permittee must clearly explain the details of this project. This request is a deficiency and is explained elsewhere in this memo (see deficiency written under R645-301-231.100, R645-301-121.100, R645-301-121.200).

For the 1.5-acre additional disturbed area, the Permittee will relocate the vacuumed topsoil (coal fines vacuumed; July 22, 2003). The Division will assist the Permittee in determining the presence of cryptogams of this soil prior to removal. If cryptogams are present, the Permittee will separately remove and transplant cryptogams to a topsoil stockpile. In order to obtain maximum benefit from cryptogams replacement, the Permittee must provide a brief procedure for the cryptogam relocation project (see deficiency written under R645-301-232.500).

The Permittee must not only note the area (p7a, Chap IV), but also mark the area of the transplanted cryptogams. (R645-301-341.300).

The Permittee will pock, seed, and mulch the relocated topsoil from the 1.5-acre site. The Permittee must consult with the Division about the seed mix as previously stated in a deficiency. The Permittee must also clarify the type of mulch and that it is noxious weed free (R645-301-353.250)

Findings:

Information provided in the application is not considered adequate to meet the minimum Vegetation requirements of the Operations Plan regulations. Prior to approval, the Permittee must act in accordance with the following deficiencies and notations.

In addition to the deficiencies, the Permittee must change all references to warm and cool season seed mixes, in this amendment and MRP, to reflect the actual type of the seed mix (R645-301-121.200**;** see General Contents for the deficiency).

The Emery Mine has not been successful in revegetating disturbed land, previously. When the Division approved the 4th east portal, it was agreed that the Permittee would conduct a four-phase revegetation study. The Permittee submitted a scope of work for only phase I of this study on April 1, 2003. The Permittee will submit the results of the study in late fall of 2003 or winter of 2004. At that time, the Permittee, contractor, and Division will determine the steps and procedures for phase II. The Permittee must continue to follow the steps in the four phase, irrespective of the sale of the Emery Mine.

The Permittee reworked and reseeded part of the topsoil pile in 2003. Chapter IV, page 7 briefly describes this project. The Permittee must clearly explain the details of this project. This request is a deficiency and is explained elsewhere in this memo.

R645-301-341.210, The Permittee must consult with the Division to determine which interim seed mix to use on all projects prior to seeding because there are three interim seed mixes.

R645-301-341.300, The Permittee must provide a brief procedure for the cryptogam relocation project (see deficiency written under R645-301-232.500). The Permittee must also mark the area of transplanted cryptogams on the topsoil pile.

R645-301-353.250, The Permittee must clarify the type of mulch and that it is noxious weed free for the 1.5-acre project.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Classification System

The Permittee has classified the new section of the access/haul road as primary. This is consistent with the regulation for road classification and the existing plan.

Plans and Drawings

The Permittee has shown the addition to the access/haul road on several maps including Plate IV-3b. The Permittee did not show any new road designs. The Division assumes that the Permittee will use the existing road designs.

Appendix X. C-3, prepared by Norwest, show a typical cross-section for the new haul road. The cross-section was not certified but is similar to the current road configuration.

Performance Standards

The Permittee will be required to keep all performance standards.

Primary Road Certification

The location of the new access/haul road is shown on several maps that have been certified, including Plate II-3, 4th East Portal Surface Facilities. The typical cross-sections for the road are shown in the MRP.

Other Transportation Facilities

The Permittee does not propose to change the basis layout for the conveyor system. They do propose to replace the existing crusher with a roller crusher to reduce dust and to enclose the transfer point. Those changes are stated in the text but would not show up on the maps.

Findings:

The information provided in this amendment is adequate to meet the minimum requirements of this section of the regulations.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

The Permittee does not propose to change how waste materials are handled. There will be no spoil produced because of the addition of the 1.5 acres.

Findings:

The Permittee has met the minimum requirements for this section of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

As part of the N03-39-1-1 mitigation plan the Permittee proposes to add an additional 1.5 acres on the northeast side of the permit. Only one acre will be disturbed. The pre-disturbed contours are shown on Plate III-5, Coal trucks will enter the permit addition on the southeast side and loop around to the north to reduce coal dust disturbance. Currently, the coal trucks are routed around the coal stockpile where they can stir up coal fines that are then carried away from the disturbed area.

Diversions: Miscellaneous Flows

The mitigation plan adds 1.5 aces to the permit. Plate II-3 illustrates the change. Plans are not clear about the road construction on Cowboy Mine Road No. 95, however. It is a county road and outside the permit area, not part of the disturbed area or permit. The Permittee needs to keep in mind that runoff from the county road should not flow onto the disturbed area. It may be necessary for the county to establish a berm or ditch (including a culvert under the access road) between the road and property to transmit flow from the county road to the natural drainage. In

the event the County does not provide these diversions, the responsibility will fall to the Permittee.

The south end of the 1.5 acre addition slopes toward the natural drainage channel, so no berm is needed on the south end to prevent undisturbed drainage entering the permit area.

The 1.5 acre addition will drain to an 18 inch culvert, then to the sedimentation pond. The Permittee has submitted designs for the culvert, which show the culvert to be of sufficient size to easily transmit the flow and sediment from the 1.5 acres.

Ponds, Impoundments, Banks, Dams, and Embankments

The Permittee plans to route runoff from the 1.5 acres into Sedimentation Pond #9. Runoff from a total area of 4.9 acres will flow to the pond from the 4th East Portal site. Updated calculations were submitted showing the pond will contain the 10 yr-24 hr precipitation event. The Permittee plans to change the size of the decant pipe from 12 inches to 15 inches. The dewatering will take place from the 15 inch CMP, which will be closed at all times except when the pond is being dewatered. The open channel emergency spillway will transmit flows above the 10 yr-24 hr precipitation event and will be constructed .9 foot above the peak pool of the 10 yr. 24 hr design storm at an elevation of 6054.55. Dewatering will take place after 24 hours of settling.

Findings:

The information provided in the application is not considered adequate to meet the Hydrologic Information section requirements of the Operational Plan regulations.

R645-301-742.300 In the event no diversion structure is constructed along the east side of the 1.5 acre addition by the County, as they rebuild the county road, the applicant shall install a diversion structure (berm or ditch) along the eastern side of the 1.5 acre addition (just west of the road). Any changes will be required to be stable and shown on maps.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

The Permittee will add the following facilities to the 4th East Portal area:

- Jersey barriers - keep the coal within the storage area.
- Wind fence - should reduce the wind speeds and the coal particles that become windborne.
- Water cannon - reduce the amount of coal particles that become windborne.
- Cattle guard - reduce the amount of coal that is spread by truck tires, by removing the material from the tires.

In addition to those facilities, the Permittee will replace the crusher with a double-roller or other type of non-pulverizing device. The new crusher should reduce the amount of coal fines that are created.

The surface facilities are shown on several maps including Plate II-3, 4th East Portal Surface Facilities and Figure 14 of Appendix X.C.3. Although Jersey barriers are shown on Figure 14, they are not on Plate II-3. All surface facilities must be shown on the 4th East Portal Surface Facilities Map.

Coal fines blow from the coal pile to undisturbed areas east of the permit area (N03-39-1-1). The depth of the coal fines increased since January 2003 when the NOV was written (visual observation). The measures that the Permittee has implemented to address the NOV in the past have not been adequate. The amount of coal fines on May 8th 2003 was over 2" in certain points within the 1.5-acre area (Division field visit). This amount of fines is significantly greater than the amount approximated during the January 2003 field visit.

The Permittee last vacuumed the area where most of the coal fines had increased, in July of 2003. Since then the Permittee ceased mining operations at the 4th east portal, removad/relocated the coal stockpile, and negotiated the sale of the Emery Mine.

In the summer of 2003, CONSOL contracted the Norwest Corporation to comprehensively and adequately respond to the NOV. Norwest provided the CONSOL Energy: Fugitive Dust Control Plan for the 4th east portal area of the Emery Mine. The consultants informally presented the proposed dust control plan on August 26, 2003. The Permittee incorporated Norwest's plan in this amendment (Chapter X, Part C – Air Quality). The dust control plan includes wind fences, watering devices, crusher replacement, operation enclosures, and maintenance plans. The plan also includes relocating the haul truck route within a 1.5-acre area expansion site located east of the existing disturbed and permit boundary.

The main principle behind relocating the haul road is to reduce the length of road surface where coal fines persist. The amendment provides supporting evidence of EPA's approval of rerouting roads. However, EPA's support is for rerouting roads to reduce road length to decrease dust. In this case, the proposed road would increase the total surface of roads for mining operations. Figure 14 of the Norwest plan shows that the rerouted road is possibly longer than

the existing haul road. More road surface would not only disturb more area, but also increase the possibility of haul trucks generating dust. Furthermore, the addition of the proposed haul road may exacerbate the disturbance to the east of the County Road 915.

The Permittee plans to relocate and stockpile the topsoil prior to upgrading the county road. The road project will also include blading and regrading the road for flow to the sediment pond, applying 6" of gravel on 915 and the extension, placing signage for a 10 MPH speed limit, and applying $MgCl_2$ and TARBT dust suppressants to the road surfaces.

It will be difficult to determine the effectiveness of the proposed Phase 1 Control Strategy (including the haul truck road) during this period of inactivity. The Division must wait to evaluate the effectiveness of the abatement strategies outlined in Phase 1 until coal operations are near the capacity that existed when N03-39-1-1 was issued (January 9, 2003).

The Norwest plan states that the project will include one (pg. 9) or more (Figure 14) water cannons near the coal stockpile. The Division is concerned that the consultants did not provide supporting evidence to insure coverage of the entire coal stockpile by the water cannons. Without supporting evidence for the water cannons, it is very difficult to evaluate the effectiveness of the cannons. The Permittee does not provide the parameters that Norwest considered for determining the size and number of the cannons and nozzles. The Division's concern is if the nozzle size and water pressure is adequate to completely cover the stockpile on "normal" days, could the water evaporate before much of the water even reaches the stockpile on days with high evaporation rates. The Permittee must provide supporting evidence or rationale concerning the water cannons. Instead of submitting specs on the equipment, it would be more appropriate and timely for the Permittee to provide narrative explaining the parameters considered when selecting cannon and nozzle size as well as placement of these pieces of equipment. (R645-301-526).

John Gefferth (personal communication; October 8, 2003) stated that the entire coal stockpile will be sprayed irrespective of equipment quantity, size, or location. The Permittee also stated that Norwest will submit a brief narrative of supporting evidence that insures coverage.

The consultants state that the water cannons will activate when wind speeds are, for example, greater than 35 MPH for over 15 minutes. These cannons are also supposed to operate in all weather conditions and wet the surface without runoff. The system will remain operating until wind speed is "below the threshold level for triggering the system" (pg. 9). The Division is concerned that the system will continue to operate during periods of persistent high winds. John Gefferth stated that the system will shut off, irrespective of wind speed, once the water saturates the coal stockpile. The Permittee must clarify the sentence on page 9 to reflect Mr. Gefferth's statement made on October 7, 2003 (R645-301-121.200; see General Contents for the deficiency).

Another related abatement measure includes modifying and updating the existing water spray system for the coal conveyor belt. As with the water cannons, it is difficult for the Division to determine the effectiveness of this measure without supporting evidence. The Permittee must provide supporting evidence or rational for the points of the conveyor nozzle spray upgrade plan. (R645-301-526).

John Gefferth (personal communication; October 8, 2003) stated that Norwest will submit a brief narrative of supporting evidence that insures coverage. One major parameter the Permittee must address for both water control measures is that the water will come from the mine, which is considered high in suspended solids and total dissolved solids. If the spray nozzles and design are not adequately sized or properly maintained, the water will plug the nozzles.

The Permittee plans to install a Raring Corp. wind fence along the western edge of the coal stockpile. The project will include a 400'L x 45' H wind fence attached to wooden poles spaced 15' apart. This fence should help deflect and reduce speed of the prevailing wind that channels around the excavation material stockpile. John Gefferth (personal communication; October 8, 2003) stated that Norwest will submit a figure showing that the wind fence height is higher than the coal radial stacker. The contractors must also submit supporting narrative that the wind fence height and length will adequately limit movement of coal fines as a result of boundary layer turbulence and eddy effects.

The prevailing winds at the Emery Mine are westerly, therefore, coal fines blow from the coal pile to the east including the 1.5 acres proposed in this amendment. The Permittee installed a weather station in January 2003 and is supposedly collecting data at this time. Earlier in the year, the Permittee mentioned that the stations had not been operating for some period. On August 26, 2003, the Permittee confirmed that the station was back in operation. It would have been helpful in designing the proposed dust control plan if the data had been taken continually since January 2003. The location of the wind fence is subject to the evaluation of all available climatological data.

It will be difficult to determine the effectiveness of either the water devices (cannon and conveyor system) or wind fence without a coal pile. Determination of the success of these Phase 1 controls must be delayed until the mine has built up a pile similar in size to the size that existed at the time of N03-39-1-1 issuance (January 2003).

The Norwest monitoring and maintenance plan for technical equipment is inconsistent (Chapter X, Part C, Appendix X.C-3 [Appendix I]). Norwest recommends logs for certain items, but not for others. The Permittee must maintain weekly monitoring and maintenance log showing that the Permittee is monitoring the effectiveness of the water control equipment,

weather station, wind fence, and all other abatement measures (R645-301-526). As expected, the Permittee must also adhere to all other points presented monitoring and maintenance plan.

During a meeting between the Division and Consol Energy on August 26, 2003, the strategies for dust control described in Appendix X.C-3 were approved in concept with the following additions:

1. A designation in the permit of a stockpile manager, responsible for the construction, implementation and maintenance of the dust control strategies, as well as wind data collection. The supervisor would direct on–site activity, familiarize personnel with the dust control strategies, train individuals to conduct maintenance on the water sprays, water cannon, and wind fence; train truckers in environmentally sound loading techniques, and coordinate all dust control activities.
2. A maintenance plan for the controls including a program and log
3. A means of providing a working demonstration of the dust controls during inspections.
4. Clarification of the spray points to be implemented in Phase I.
5. Rationale for the engineering of the devices presented, including parameters considered.
6. Addition of the coal-fine disturbed area to the disturbed area.
7. A copy of the application to modify the Air Quality Approval Order
8. A means to measure of the success of the dust control strategies and to determine when implementation of Phase II is required.
9. An escrow agreement providing assurance of Phase 2 implementation.
10. An explanation for any delay in implementation beyond October 15, 2003.

All these items must be addressed before approval.

Findings:

Without coal operations or the coal stockpile, it will be difficult to determine the effectiveness of the Phase 1 abatement measures. The Division must wait to evaluate the success of the Phase 1 controls until:

- Coal operations are up to the capacity existing the time of N03-39-1-1 issuance (January 2003).
- Coal stockpile is built up to a size similar to the size that existed at the time of N03-39-1-1 issuance.

The information provided does not indicate that the dust control/support facilities will be constructed or implemented using the best technology available.

The Permittee must clarify the sentence on page 9 to reflect Mr. Gefferth's statement made on October 7, 2003 (See General Contents for the deficiency).

It is critical for the Division to adequately determine whether abatement measures are effective for the protection of vegetation and wildlife. The Permittee must install some type of measuring system to track coal fines. This system may include coal fine collection boxes to measure changes in the amount of fugitive fines and dust that leaves the permit area. The Permittee and Division may want to consult with the Division of Air Quality or other agencies to determine the most effective method for data collection and analysis.

Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-521.161 and R645-301-141, The Permittee must show all of the support facilities on the Suface Facilities Map, Plate II-3.

R645-301-526, (1) The Permittee must provide supporting evidence that insures coverage by the water cannons. (2) The Permittee must provide supportive evidence or rational for the points of the conveyor nozzle spray upgrade plan. (3) The Permittee must maintain weekly monitoring and maintenance log showing that the Permittee is monitoring the effectiveness of the water control equipment, weather station, wind fence, and all other abatement measures. (4) Submit a brief narrative of supporting evidence that insures coverage by the water cannon. (One major parameter the Permittee must address for both water control measures is that the water will come from the mine, which is considered high in TSS and TDS. If the spray nozzles and design are not adequately sized or properly maintained, the water will plug the nozzles.) (5) Submit a figure showing that the wind fence height is higher than the coal radial stacker and supporting narrative that the wind fence height and length will adequately limit movement of coal fines as a result of boundary layer turbulence and eddy effects.

R645-301-526.220, R645-301-526.221, R645-301-526.222, The plan must include the following additions: (1) A designation in the permit of a stockpile manager, responsible for the construction, implementation and maintenance of the dust control strategies, as well as wind data collection. The supervisor would direct on–site activity, familiarize personnel with the dust control strategies, train individuals to conduct maintenance on the water sprays, water cannon, and wind fence; train truckers in environmentally sound loading techniques, and coordinate all dust control activities. (2) The maintenance plan (Appendix I) requires improvements as discussed on October 8, 2003. (3) A means of providing a working demonstration of the dust controls during inspections. (4) Clarification of the spray points to be implemented in Phase I. (5) Rationale for the engineering of the devices presented, including parameters considered. (6) Addition of the coal-fine disturbed area to the disturbed area. (7) A copy of the application to modify the Air Quality Approval Order. (8) A means to measure of the success of the dust

control strategies and to determine when implementation of Phase II is required. (9) An escrow agreement providing assurance of Phase 2 implementation. (10) An explanation for any delay in implementation beyond October 15, 2003.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

The plan must indicate that all topsoil stored in berms will be signed as such.

Findings:

The information provided does not meet the requirements of the Regulations. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-521.270, The plan must indicate that all topsoil berms will be clearly marked as topsoil storage.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected Area Maps

The Division considers the affected area to be the permit area plus any additional areas that might be included. Plate UG Operations Plan shows the projected expansion areas. However, the 1.5 permit addition is not shown on that map. Not all of the affected area is shown on Plate UG-Operations Plan. The Permittee needs to show the affected area on one map. This deficiency has already been addressed in the Environmental Resource Section of the TA and will not be repeated here.

The Permittee has supplied maps showing the surface facilities, Plate II-3, and Surface Control Plan, Plate VI-10a.

Mining Facilities Maps

The Permittee shows the new facilities on Plate II-3. Some facilities are not shown on this plate. That issues is addressed in Support Facilities and Utility Installation section of the TA.

Certification Requirements

Certification issues have been addressed in other sections of the TA.

Findings:

The information in the amendment is not considerate adequate to meet the minimum requirements of this section of the regulations. Before approval, the Permittee must give the Division the following information in accordance with:

R645-301-521.100 The applicant shall submit Plate II-3 showing a diversions installed along the east side of the 1.5 acre addition.

R645-301-521-141 and R6545-301-521.190, The Permittee must show on one map or a series of connected maps the affected area boundaries. Those boundaries include areas for which addition permits might be sought.

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The post mining land use will be grazing/wildlife habitat as described in Chapter X., Part D. Section 5.

Findings:

The information provided meets the requirements of the Regulations.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

On Plate III-5, 4th East Portal Site Pre & Postmining Topography Plan View, the Permittee shows the postmining contours. The map scale is 1 inch equals 200 feet. Because of the scale, the Division is unable to make a complete evaluation of the reclamation plan for the 1.5-acre addition.

The information on Plate III-5 shows that the pre and postmining topography will be similar. The existing topography is flat and the Permittee proposes to restore the area to the approximate pre-mining conditions.

The Division requires that the Permittee include maps of the pre and post-mining topography that are at a scale of 1 inch equals 100 feet or smaller in other sections of the TA. To prevent redundancy on deficiencies the Division address that issue in another section. If the new maps show that a problem exist the Division will address the issue at that time.

Spoil piles and highwalls will not be located on the 1.5-acre addition. Restoring the hydrology of the area for AOC purposes will be met if the Permittee can demonstrate that all hydrology issues have been addressed.

The Division did a complete evaluation of how the site would be reclaimed to AOC during the initial approval for the 4th East Portals. The addition of the 1.5 acres of which 1.0 acres will be disturbed is a minor adjustment to the reclamation plan that should not affect the Permittee's ability to restore the complete site to AOC.

Findings:

The Permittee has met the minimum requirements of this section of the regulations.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The Division did a complete analysis of the backfilling and grading plan during the initial permitting of the 4th East Portal area. The addition of 1.5 acres (of which 1.0 acre will be disturbed) will not alter the overall backfilling and grading plan. However, the Worksheet in Appendix IV.B.1 indicates that the area of topsoil salvage will have topsoil replaced and the surface gouged to a depth of 6 inches to a foot (page A-12). The area where topsoil was stored in place will be ripped to a depth of 1.5 feet on two foot centers (page A-9). This will likely promote areas of increased erosion along the ripped zones without alleviating compaction between the ripped zones. The Division will require that the entire site be gouged to a six inch to a foot depth.

The backfilling and grading plan calls for the 1.0-acre area to be restored to the topography that existed before disturbance. The main reclamation activities for the site will be road removal and topsoil placement. Those issues are addressed in other sections of this TA.

Plate III-5 must be redrawn to include the additional 1.5 acre disturbed area.

Previously Mined Areas

No previously mined areas exist within the 1.5-acre addition. Note: this section has to do with highwalls and no highwalls are associated with this area of the 4th East Portal facility.

Findings:

The information provided does not indicate that the backfilling and grading activities will be completed using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-553.140 and R645-301-244.200, Chapter III and the Bonding Worksheet in Appendix IV.B.1 must indicate that the entire site will be gouged to a depth of six inches or one foot.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

Chapter III Reclamation Plan, page 21 does not describe in enough detail the process of replacement of cryptogams over the surface at reclamation.

Page 2 of the Worksheet in Appendix VI.B.1 indicates that two inches of cryptogamic crust will be salvaged from the topsoil stockpile and respread over the surface of the topsoiled, reclaimed site. The plan should specify that ripping or gouging of the topsoiled site will occur prior to the respreading of cryptogams and that cryptogams will be broadcast manually.

Findings:

The information provided does not indicate that the soil will be stabilized using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, The sequence of topsoiling, broadcasting of cryptogamic soil and ripping/gouging should be indicated clearly in the reclamation plan outlined in Chapter III of the application as well as the Worksheet in Appendix VI.B.1.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The Permittee did not specifically address the reclamation of the road and cattle guard in the amendment. In the MRP, the Permittee committed to remove all roads and associated structures. The postmining maps show that the road and other structures will be removed. The Division believes that information is adequate to determine that the new access road will be removed and reclaimed according to the approved plan.

Retention

The Permittee does not propose to retain any roads associated with the 1.5-acre addition.

Findings:

The information given in the amendment is adequate to meet the minimum requirements of this section of the regulations.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

Vegetation reference areas were established and quantitatively sampled in 1980 by Stoecher-Keammerer & Associates of Boulder, Colorado. The mixed desert shrub reference area had a vegetative cover of 10.6 percent (Ch. VIII, pg. 19). The raw data is not included in the Mining and Reclamation Plan (MRP). Eleven percent vegetative cover is low from the Division experience in observing vegetative cover on other adjacent sites. However, the reference area and 4th East Portal disturbed area compare equally based on the Division's visual observations. The vegetative cover of the reference area will be re-measured at the same time as the reclaimed disturbed area by the same observer according to the revegetation guidelines.

Findings:

Information provided in the application is considered adequate to meet the minimum Revegetation requirements of the Reclamation Plan regulations

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

The plan should indicate the interim reclamation measures that were undertaken in conjunction with the abatement of N03-38-1-1 (August 5, 2003), interim seeding and hydromulching of the 1.0 acre area now proposed for use as a new haul route. Also, the seeding of the area disturbed by vehicle traffic during the installation of the transmission lines (along the south fence line) which was seeded and hydromulched along with the 1.0 acre addition on August 19, 2003. Likewise, the plan should mention the contemporaneous reclamation of the area disturbed by vehicle traffic during construction of the west fence line (hydromulched only during the fall of 2002) and the area along the southeast fence line affected by vehicle traffic during installation of the transmission lines and repairs to transmission lines (hydromulched only during the fall of 2002).

Findings:

The information provided does not meet the requirements for clear and concise reporting of interim reclamation. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, the plan must indicate measures taken to date to stabilize areas along the fence lines affected by vehicle traffic.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Bonded Area Map

The bonded area is considered by the Division to be the same as the disturbed area for the 4th East Portal facilities. That area is shown on several maps including Plate II-3.

Reclamation Backfilling And Grading Maps

Plates IV-3b Sheets 1 and 2 , 4th East Portal Plan and Cross Sections show the additional 1.0-acres of disturbed area.

Reclamation Facilities Maps

No facilities that will be retained after reclamation is finished.

Final Surface Configuration Maps

The final surface configuration is shown on Plate III-5, 4th East Portal Site Pre & Postmining Topography Plan View. The map's scale is too small for the Division to evaluate the final surface configuration. This deficiency was stated in other sections of the TA and will not be repeated here.

Certification Requirements.

The reclaimed contour map was not certified. That issue was addressed in the Environmental Resource Section of the TA.

Findings:

The information in the amendment meets the minimum requirements of the regulations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The Permittee needs to include the demolition and removal costs for each item in the 4th East Portal Area. The missing items include but are not limited to:

- Wind fences
- Jersey Barriers
- Truck scale

The earthwork and vegetation costs for the 4th East Portal area is adequate, except that the reclamation plan for the 4th East portal should indicate that the entire 16 acres will be gouged after topsoiling (Worksheet 4B Earthwork Quantity and page A-12 Appendix IV.B.1). This will add an additional 6 acres of surface roughening which equates to an additional 4,033 L.C.Y. under roughening on Worksheet 4B. The total area to be roughened would then be 12,907 L.C.Y.

Using the 12,907 L.C.Y. figure in the calculations on page A-12 Appendix IV.B.1 would require an additional 21 hours of time for the hydraulic excavator. This brings the total time hours required for the CAT 416 backhoe to 67 Worksheet 13 Summary Calculation of Earthmoving Costs and the Total cost for that item would be $4,891. This is a difference of $1,533 in a Grand Total earthmoving budget of $222,486 for the 4th East Portal site (about 0.7%). Consequently this adjustment to the reclamation procedure seems inconsequential to the overall cost of the reclamation.

Findings:

The information provided does not indicate that the soil will be stabilized using the best technology available. Prior to approval, the Permittee must provide the following, in accordance with:

R645-301-244.200, The bonding calculations for the 4th East portal should indicate that the entire 16 acres will be gouged after topsoiling (Worksheet 4B Earthwork Quantity and pages A-12 and A-17 of Appendix IV.B.1).

R645-301-830.140, The Permittee must provide the Division with detailed reclamation cost estimates that include all the facilities in the 4th East Portal Area.